

Abstract

A passive cooling system for a vehicle (114) transfers heat from an overheated internal component, for example, an instrument panel (100), to an external portion (116) of the vehicle (114), for example, a side body panel (126). The passive cooling system includes one or more heat pipes (112) having an evaporator section (118) embedded in the overheated internal component and a condenser section (120) at the external portion (116) of the vehicle (114). The evaporator (118) and condenser (120) sections are in fluid communication. The passive cooling system may also include a thermally conductive film (140) for thermally connecting the evaporator sections (118) of the heat pipes (112) to each other and to the instrument panel (100).